



PATENT
Attorney Docket No.: COOL-01400

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	Group Art Unit: 3743
James Lovette et al.)	Examiner:
Serial No.: 10/612,241)	<u>TRANSMITTAL LETTER</u>
Filed: July 1, 2003)	162 N. Wolfe Road
For: MULTI-LEVEL MICROCHANNEL)	Sunnyvale, CA 94086
HEAT EXCHANGERS)	(408) 530-9700
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

Enclosed please find an Information Disclosure Statement and Form PTO-1449, including copies of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

You will also find enclosed the associated Transmittals, Electronic Information Disclosure Statements, and United States Patent and Trademark Office Acknowledgment Receipts for the electronically filed Information Disclosure Statement (EFS ID #56509); (EFS ID #56511); and (EFS ID #56512) filed on March 3, 2003.

The Commissioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1275. **An originally executed duplicate of this transmittal is enclosed for this purpose.**

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: 3-4-04

By: Thomas B. Haverstock
Thomas B. Haverstock
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CERTIFICATE OF MAILING (37 CFR § 1.8(a))

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HAVERSTOCK & OWENS LLP.

Date: 3-4-04 By: John D. Haverstock



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Sir:

The citations listed below, copies attached, may be material to the examination of the above-identified application, and are therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make these citations of official record in this application.

United States Patents or Published Patent Applications have been filed electronically (EFS ID #56509); (EFS ID #56511); and (EFS ID #56512). Applicants have become aware of the following printed publication which may be material to the examination of this application:

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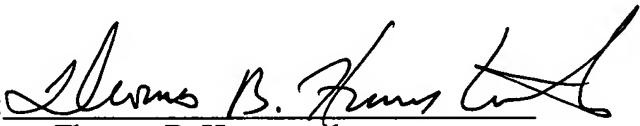
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This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that anyone or more of these citations constitutes prior art.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

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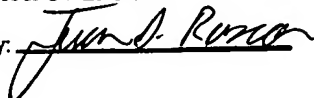
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HAVERSTOCK & OWENS LLP.

Date: 3-4-04 By: 

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ACKNOWLEDGEMENT RECEIPTElectronic Version 1.1
Stylesheet Version v1.1.1

Title of Invention	MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS										
Submission Type:	Information Disclosure Statement										
Application Number:	10/612241	*10/612241*									
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Title of Invention	MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS		
Application Number:	10/612241	*10/612241*	
Date:	2003-07-01		
First Named Applicant:	James Lovette		
Confirmation Number:	3319		
Attorney Docket Number:			
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Submitted by:		Elec. Sign.	Sign. Capacity
Thomas B. Haverstock Registered Number: 32571		/tbh/	Attorney

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Title of
Invention

MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS

Application Number: 10/612241 *10/612241*

Confirmation Number: 3319

First Named Applicant: James Lovette

Attorney Docket Number:

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US Patent Documents

Note: Applicant Is not required to submit a paper copy of cited US Patent Documents

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	1	3817321	1974-06-18	von Cube et al.			
	2	4109707	1978-08-29	Wilson et al.			
	3	4312012	1982-01-19	Frieser et al.			
	4	4450472	1984-05-22	Tuckerman et al.			
	5	4485429	1984-11-27	Mittal			
	6	4516632	1985-05-14	Swift et al.			
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	8	4567505	1986-01-28	Pease et al.			

9	4573067	1986-02-25	Tuckerman et al.
10	4758926	1988-07-19	Herrell et al.
11	4866570	1989-09-12	Porter
12	4868712	1989-09-19	Woodman
13	4894709	1990-01-16	Phillips et al.
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19	5057908	1991-10-15	Weber
20	5070040	1991-12-03	Pankove
21	5083194	1992-01-21	Bartilson
22	5088005	1992-02-11	Ciaccio
23	5099311	1992-03-24	Bonde et al.
24	5099910	1992-03-31	Walpole et al.
25	5125451	1992-01-30	Matthews
26	5131233	1992-07-21	Cray et al.
27	5203401	1993-04-20	Hamburgen et al.
28	5218515	1993-06-08	Bernhardt
29	5232047	1993-08-03	Matthews
30	5239200	1993-08-24	Messina et al.
31	5263251	1993-11-23	Matthews
32	5274920	1994-01-04	Matthews
33	5309319	1994-05-03	Messina
34	5317805	1994-06-07	Hoopman et al.
35	5325265	1994-06-28	Turlik et al.
36	5380956	1995-01-10	Loo et al.
37	5383340	1995-01-24	Larson et al.
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41	5508234	1996-04-16	Dusablon, Sr. et al.
42	5514832	1996-05-07	Dusablon, Sr. et al.
43	5514906	1996-05-07	Love et al.
44	5544696	1996-08-13	Leland
45	5548605	1996-08-20	Benett et al.
46	5575929	1996-11-19	Yu et al.
47	5585069	1996-12-17	Zanzucchi et al.
48	5641400	1997-06-24	Kaltenbach et al.
49	5692558	1997-12-02	Hamilton et al.
50	5696405	1997-12-09	Weld

Signature

Examiner Name

Date

**UNITED STATES PATENT AND TRADEMARK OFFICE
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Electronic Version 1.1

Stylesheet Version v1.1.1

Title of Invention	MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS										
Submission Type:	Information Disclosure Statement										
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Title of Invention	MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS						
Application Number:	10/612241 *10/612241*						
Date:	2003-07-01						
First Named Applicant:	James Lovette						
Confirmation Number:	3319						
Attorney Docket Number:							
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Stylesheet Version v1.8.0

Title of
Invention

MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS

Application Number: 10/612241

10/612241

Confirmation Number: 3319

First Named Applicant: James Lovette

Attorney Docket Number:

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Note: Applicant is not required to submit a paper copy of cited US Patent Documents

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	1	5727618	1998-03-17	Mundinger et al.			
	2	5774779	1998-06-30	Tuchinsky			
	3	5800690	1998-09-01	Chow et al.			
	4	5801442	1998-09-01	Hamilton et al.			
	5	5835345	1998-11-10	Staskus et al.			
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37	6301109	2001-10-09	Chu et al.	B1
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49	6406605	2002-06-18	Moles	B1
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Signature

Examiner Name

Date

UNITED STATES PATENT AND TRADEMARK OFFICE
ACKNOWLEDGEMENT RECEIPT

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Application Number:	10/612241	*10/612241*	
Date:	2003-07-01		
First Named Applicant:	James Lovette		
Confirmation Number:	3319		
Attorney Docket Number:			
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Submitted by:		Elec. Sign.	Sign. Capacity
Thomas B. Haverstock Registered Number: 32571		/tbh/	Attorney

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Stylesheet Version v18.0

Title of
Invention

MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS

Application Number: 10/612241

Confirmation Number: 3319

First Named Applicant: James Lovette

Attorney Docket Number:

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10/612241

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

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	1	6443222	2002-09-03	Yun et al.	B1		
	2	6444461	2002-09-03	Knapp et al.	B1		
	3	6457515	2002-10-01	Vafai et al.	B1		
	4	6537437	2003-03-25	Galambos et al.	B1		
	5	6543521	2003-04-08	Sato et al.	B1		
	6	6553253	2003-04-22	Chang	B1		
	7	6588498	2003-07-08	Reysin et al.	B1		
	8	6591625	2003-07-15	Simon	B1		
	9	6632655	2003-10-14	Mehta et al.	B1		

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

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	1	20010016985	2001-08-30	Insley et al.	A1		
	2	20010024820	2001-09-27	Mastromatteo et al.	A1		
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	4	20010046703	2001-11-29	Burns et al.	A1		

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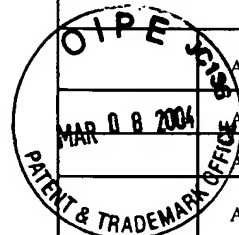
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				Filing Date: July 1, 2003		Group Art Unit: 3743	
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)							
AA	Stephen C. Jacobson et al., "Fused Quartz Substrates for Microchip Electrophoresis", Analytical Chemistry, Vol. 67, No. 13, July 1, 1995, pages 2059-2063.						
AB	Kendra V. Sharp et al., "Liquid Flows in Microchannels", 2002, Vol. 6, pages 6-1 to 6-38.						
AC	Shuchi Shoji et al., "Microflow devices and systems", J. Microtech. Microeng. 4 (1994), pages 157-171, printed in the U.K.						
AD	Angela Rasmussen et al., "Fabrication Techniques to Realize CMOS-Compatible Microfluidic Microchannels", Journal of Microelectromechanical, Vol. 10, No. 2, June 2001, pages 286-297.						
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